

REMARKS

Claims 1-6 and 14-15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Koji et al. (JP 2000-275685) in view of Taniguchi et al. (U.S. Patent No. 5,746,939). In response, Applicants amended independent claims 1 and 14 to clarify that the phase sequence is either one of an isotropic phase - cholesteric phase - chiral smectic C phase or an isotropic phase - chiral nematic phase - chiral smectic C phase from a higher-temperature side, and respectfully traverse because the cited references fail to disclose or suggest a temperature width of not less than 3°C for the phase sequence. Applicants also traverse because there is no motivation to combine the references.

Amended independent claims 1 and 14 require a temperature width of not less than 3°C for a phase sequence of liquid crystal that is isotropic phase - chiral smectic C phase or chiral nematic phase - chiral smectic C phase from an elevated or higher temperature to a lower temperature. The Examiner cites Taniguchi for teaching this feature on page 4 of the Office Action (see Col. 3, lns. 43-48 of Taniguchi). However, Taniguchi teaches a temperature range only for a phase transition series from a higher temperature side to a lower temperature side that is from an isotropic phase - cholesteric phase - smectic A - chiral smectic C phase (phase transition series (i)). Taniguchi is silent regarding any temperature widths for the phase sequences of isotropic phase - cholesteric phase - chiral smectic C phase or an isotropic phase - chiral nematic phase - chiral smectic C phase. For at least this reason, the rejection should be withdrawn.

Additionally, Applicants traverse the rejection because there is no motivation to combine the references. Taniguchi is cited by the Examiner for teaching a temperature width in a phase sequence. However, amended claims 1 and 14 now clarify the phase sequence as being either an isotropic phase - cholesteric phase - chiral smectic C phase or an isotropic phase - chiral nematic phase - chiral smectic C phase sequence. Taniguchi teaches away from a phase sequence being either one of the above phase sequences.

More specifically, Taniguchi teaches that the phase transition series (i) shows better orientation or alignment characteristics than the other phase transition series (ii)-(iv). (See Col. 3, lns. 1-15 and lns. 25-29). Accordingly, Taniguchi teaches away from the phase sequences (ii)-(iv), and the phase sequences now recited in amended claims 1 and 14. Accordingly, one skilled in the art would not be motivated to combine the teaching of Taniguchi with Koji to achieve the present invention. For this additional reason, withdrawal of the §103 rejection is respectfully requested.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Koji in view of Taniguchi and further in view of Yoshinaga et al. (U.S. Patent No. 6,791,527). Applicants respectfully traverse the rejection for the reasons recited above with respect to the rejection of independent claims 1 and 14.

Yoshinaga is merely cited by the Examiner as disclosing a liquid crystal display device having a back-light driven by a field-sequential color scheme. Yoshinaga fails to overcome the deficiencies of Koji. Therefore, since Taniguchi fails to disclose or suggest a

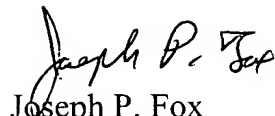
temperature width for an isotropic phase - cholesteric phase - chiral smectic C phase or an isotropic phase - chiral nematic phase - chiral smectic C phase sequence, and there is no motivation to combine Taniguchi with the other cited references, this §103 rejection should be withdrawn.

For all of the foregoing reasons, Applicants submit that this Application is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully Submitted,

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